AppleGram

Unless otherwise stated, the new products announced in this AppleGram are currently shipping and available for ordering.
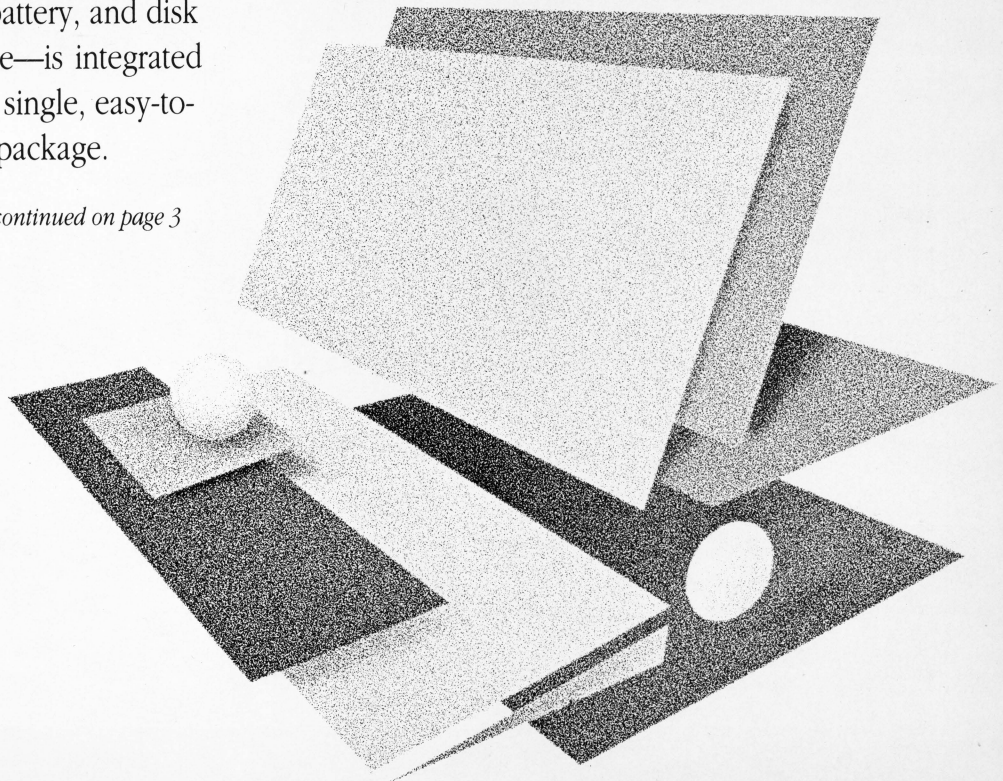
Macintosh Portable

After much speculation and anticipation by the personal computer industry, Apple® is pleased to announce shipment of the Macintosh® Portable. The new machine provides complete Macintosh functionality in a portable design, combining the latest in screen and power management technology with a variety of other innovative design features.

The Macintosh Portable runs virtually all current versions of Macintosh software and provides full compatibility with other Macintosh hardware. Everything you need—CPU, screen, keyboard, trackball, battery, and disk storage—is integrated into a single, easy-to-carry package.

Macintosh IIci

The newest member of Apple's modular product line and the next step in the evolution of Macintosh performance and functionality is the Macintosh IIci. The Macintosh IIci offers maximum performance and enhanced functionality with the same small footprint and flexible design as the Macintosh IIcx. If you require high-speed program execution for large spreadsheets, databases, and graphically intensive applications, you will appreciate the significant performance increases delivered by the Macintosh IIci.

Superior Performance

Design changes to the main processing board of the Macintosh IIci allow its 68030 microprocessor to blaze along at a clockspeed of 25 megahertz, as compared with 16 megahertz for the Macintosh IIcx. This means that, even without the other improvements that have been made to the system, the machine is capable of performing up to 45 percent faster than either the Macintosh IIcx or the Macintosh IIx computers. To speed the processing of complex mathematical functions, a 68882 math coprocessor comes standard with the Macintosh IIci.

A memory cache connector[†] supports high-speed cache memory cards. A cache memory card can improve system performance by another 20-30 percent, boosting the total performance improvement over the Macintosh IIcx and Macintosh IIx up to 75 percent.

Built-In Video

The Macintosh IIci also includes a built-in video capacity, enabling it to support several different types of Apple monitors and display a wide range of gray scale and colors in up to 256 shades. Built-in video support simplifies

[†]*This 120 pin connector is not equivalent to the Macintosh SE/30 Direct Slot. Use of SE/30 Direct Slot cards in the Macintosh IIci will damage both the card and the CPU, and void the Apple warranty.*

Macintosh IIci Features

- *Full 32-bit 68030 microprocessor:* 25 MHz clockspeed offers superior processing speed, power, and performance. Built-in Paged Memory Management Unit (PMMU) supports multitasking operating systems (such as A/UX®).

- *68882 floating-point math coprocessor:* Provides fast processing of complex mathematic functions, such as logarithmic and trigonometric series.

- *Burst mode RAM access:* Allows instructions and data to be read more quickly than does the normal access mode, improving overall system performance.

- *Built-in video support:* Eliminates the need for a NuBus video card, making system set-up easier, and increasing expandability of the system by freeing up the NuBus slot usually occupied by a video card. The Apple monitors supported are:

  — 12-inch Apple High-Resolution Monochrome Monitor, with up to 256 shades of gray

  — 13-inch AppleColor® High Resolution RGB Monitor, with up to 256 colors or shades of gray

  — 15-inch Apple Macintosh Portrait Display, with up to 16 shades of gray

Macintosh Portable

Best of all, the Macintosh Portable delivers everything Macintosh is famous for—icons, windows, and pull-down menus make applications intuitive and easy to learn. The interface is consistent across applications, reducing training and support costs.

Active Matrix Display

The Macintosh Portable delivers the superior graphics that people have come to associate with Macintosh. Its high-contrast Active Matrix Liquid Crystal Display (AMLCD) has such a fast response rate that the Macintosh interface looks and feels exactly as it does on any other Macintosh computer. It also displays the full width of a page, and makes the screen easy to see in almost any lighting condition, from almost any angle.
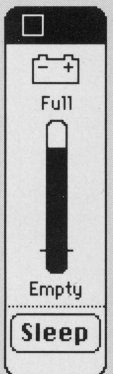
Expansion Slots

The Macintosh Portable's four internal expansion connectors allow you to customize the machine for your specific needs:

- *Internal modem slot:* allows installation of the Macintosh Portable Data Modem 2400, an internal asynchronous modem that can exchange information with any other standard data modem at 300, 1200 and 2400 bits per second. The modem was specifically designed for the Macintosh Portable to minimize power usage and thus extend the battery life. It will even wake up the Macintosh Portable when it receives an incoming phone call.

Macintosh Portable Features

- *All-in-one design:* Built-in CPU, display, trackball, disk drive, and standard Macintosh keyboard. Easy to pack, carry, set up, and use almost anywhere, anytime.

- *68000 CMOS processor operating at 16 MHz:* CMOS (Complimentary Metal Oxide Silicon) microprocessors require very little power, helping to extend battery life. The 16MHz clockspeed of the 68000 runs at twice the speed of the Macintosh SE, providing rapid processing for spreadsheets, databases, and other applications.

- *Power management microprocessor:* This chip conserves power by monitoring system components and putting them into a standby "rest" or "sleep" mode when not in use, while retaining memory contents.

- *Replaceable lead acid battery:* The lead acid battery allows the computer to monitor voltage levels and provide information on remaining power. It also lets you recharge at any time without requiring a deep discharge cycle, and can be easily replaced if necessary.
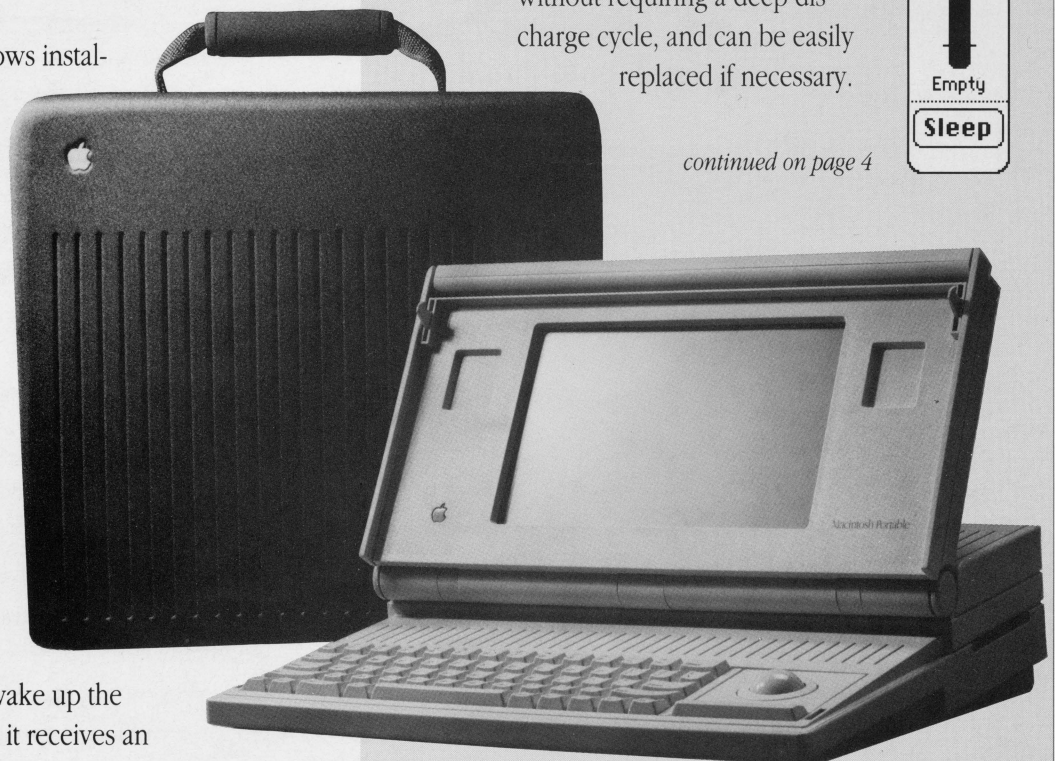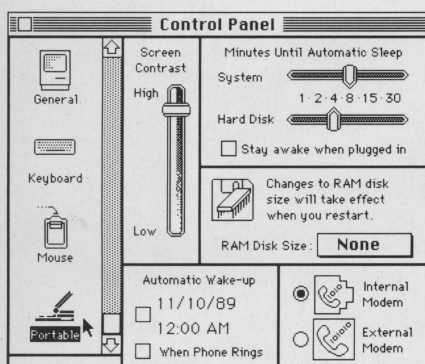
Macintosh Portable

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- *Processor direct expansion slot:* allows installation of additional third-party RAM, up to the system's full capacity of 9MB, or various third-party communications cards supporting protocols such as Ethernet.

- *ROM slot:* allows easy upgrading of system ROM, or the addition of third-party ROM enhancements.

- *RAM slot:* allows upgrading internal memory to 4MB.

Full Power

Whereas most battery-powered computers run for only two to three hours before needing to be recharged, the Macintosh Portable provides from 6 to 12 hours of operation depending on system configuration and usage. To conserve power and extend battery life, the portable includes a special microprocessor that manages power use and posts warnings when the battery is getting low. A Battery desk accessory monitors power levels and displays a meter to show how much power is remaining.

Power Manager spins down the portable's hard disk and puts the system into "sleep" mode if there is no activity for a certain period of time

System Software

The Macintosh Portable requires System Software Version 6.0.4 and HyperCard® Version 1.2.3. Both revisions are required only for the Macintosh Portable and the Macintosh IIci *(see article, "Macintosh IIci")*, offering no increased functionality on other Macintosh CPUs.

Macintosh Portable Features

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- *Apple 1.4MB SuperDrive™:* The high density floppy disk drive makes it easier to work in multivendor environments where access to data from other computers is important. SuperDrive allows you to format, read, and write to Apple 400K, 800K and 1.4MB floppy disks, as well as ProDOS, MS-DOS, and OS/2 720K and 1.44MB floppy disks.

- *Interchangeable low-power keyboard, trackball:* The track ball can be replaced with an optional numeric keypad for number-intensive applications, and either device can be mounted on either side of the keyboard for right- or left-handed use.

- *Power adapter for 85 to 270 volts AC, 48 to 62 hz:* The adapter makes the portable easy to use in almost any country without transformers (requires only a simple plug adapter).

- *Optional 40MB internal hard disk:* The low power hard disk's 28 millisecond access time provides fast and easy access to files and applications. The 40MB hard disk configuration of the Macintosh Portable (M5351) comes from the factory with System 6.0.4 and HyperCard 1.2.3 already installed.

- *Eight built-in ports:* External disk drive, SCSI, Apple Desktop Bus, printer, modem, audio, power adapter, and video ports. The ports provide easy access to all standard Macintosh peripherals. With the addition of an optional Video Adapter (available later this fall), the CPU can also drive external monitors and projection systems, allowing presentations to be made to large audiences.

- *Apple stereo sound chip:* Enables the portable to provide high-quality stereo sound, and to be compatible with all applications using Macintosh sound.

- *High quality foam-lined carrying case:* Included with each new machine, this case provides easy portability, as well as internal pockets for items such as power adapter, numeric keypad, extra battery, disks, and papers.

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Upgrades/Options

The Macintosh Portable can presently be upgraded to include 2MB of RAM with the Macintosh Portable 1MB Memory Expansion Kit. The CPU will support up to 9MB of RAM when higher density RAM chips become available.

An internal 40MB hard disk (M0268) and SuperDrive floppy disk (M0262) upgrade are available now, allowing users to upgrade to a floppy/hard disk or double-floppy configuration.

The Macintosh Portable is available in two configurations:

- 1MB of RAM; one internal floppy SuperDrive.
- 1MB of RAM; one internal floppy SuperDrive; internal 40MB hard disk, with System 6.0.4 and HyperCard 1.2.3 installed.

Other options for the Macintosh Portable include:

- Data Modem 2400 (M0250)
- Video Adapter (available in Spring 1990)
- Rechargeable Battery (M0277)
- External Battery Recharger (available in fall, 1989) (M0275)
- Numeric Keypad Module (M0239)

The numeric keypad requires installation by an authorized Apple service provider.

Macintosh Portable Personal Computer	
Order Number:	M5350

Macintosh Portable Hard Disk 40 Personal Computer	
Order Number:	M5351

Macintosh Portable 1MB Memory Expansion Kit	
Order Number:	M0248

A/UX 1.1.1

A new version of Apple's implementation of AT&T's UNIX System V, Release 2, Version 2 has been released to support the new Macintosh IIci and the Macintosh SE/30. A/UX Version 1.1.1 will replace the currently shipping version, A/UX 1.1, in September. AppleTalk® for A/UX, Version 2.0, which provides additional AppleTalk printing and connectivity features for A/UX *(see sidebar),* will be bundled with A/UX 1.1.1.

Upgrades

Current A/UX customers do not need to upgrade to Version 1.1.1 unless they plan to purchase either the Macintosh IIci or the Macintosh SE/30. Although no additional functionality has been included in this release, the Macintosh IIci with A/UX 1.1.1 does provide a significantly higher performance platform for Apple's A/UX customers *(see article, "Macintosh IIci"),* while the Macintosh SE/30 with A/UX 1.1.1 provides a powerful low-cost A/UX platform.

System Requirements

AppleTalk for A/UX requires an A/UX Macintosh system running A/UX Version 1.1 or greater. Ethernet connections require an Apple EtherTalk NB Card (or equivalent), and an EtherTalk-to-LocalTalk router, such as the AppleTalk Internet Router.

AppleTalk for A/UX, Version 2.0

AppleTalk® for A/UX, Version 2.0, is available now and includes these features:

- *AppleTalk printing* is available both from the A/UX shells and from Macintosh applications running under A/UX.

- *LocalTalk and Ethernet connectivity* to AppleTalk Phase 2 networks using either the LocalTalk™ port built into each Macintosh (a third-party LocalTalk card is no longer needed), or an Ethernet interface card such as the Apple EtherTalk™ NB Card. The Apple EtherTalk NB Card can be accessed by EtherTalk and TCP/IP protocols concurrently.

- *A/UX programming interface* to AppleTalk protocols.

Macintosh IIci

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installation—just plug a connector into the port; both the cost and time of installing a dedicated video card are eliminated, and the NuBus slot that is dedicated to video support is free for other tasks.

New ROM

A new 512K Read Only Memory (ROM)—twice the size of previous Macintosh II system ROMs—supports new hardware features, 32-bit addressing, and includes 32-Bit QuickDraw. Support for 32-bit addressing will enable future versions of the Macintosh operating system to address up to 4 gigabytes of memory. 32-Bit QuickDraw enables color systems to display up to 16 million colors simultaneously.

Configurations

The Macintosh IIci is available for ordering now in various configurations of RAM and hard disk capacity:

- 1MB of RAM; one internal floppy
- 1MB of RAM; one internal floppy; 40MB hard disk
- 4MB of RAM; one internal floppy; 80MB hard disk
- 4MB of RAM; one internal floppy; 80MB hard disk; Parity support
- 4MB of RAM; one internal floppy; 80MB hard disk with A/UX installed *(see article "A/UX 1.1.1")*

System Software

The Macintosh IIci requires System Software Version 6.0.4 and HyperCard Version 1.2.3. Both revisions are required only for the Macintosh IIci and the Macintosh Portable *(see article, "Macintosh Portable")*, and offer no increased functionality on other Macintosh CPUs.

Network Installation

Included with the standard four disks of the System Software set is a fifth floppy disk for the installation of cur-

Macintosh IIci Features

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- *Apple 1.4MB SuperDrive™:* The high density floppy disk drive makes it easier to work in multivendor environments where access to data from other computers is important. SuperDrive allows you to format, read, and write to Apple 400K, 800K and 1.4MB floppy disks, as well as ProDOS, MS-DOS, and OS/2 720K and 1.44MB floppy disks.

- *Three NuBus expansion slots:* Allows configuration of the system for specific needs, and reconfiguration as requirements change and new technology becomes available.

- *Eight built-in ports:* two serial ports; two Apple Desktop Bus ports; one SCSI port; one DB-19 serial port; one DB-15 video port; one sound port. The ports allows connection of the system to a wide variety of popular peripherals that don't require expansion cards, as well as to AppleTalk networks, external floppy and hard disk drives, sound systems, monitors, etc.

- *Locking power switch:* Particularly useful when the CPU is used as a network file server, this feature allows the system to restart itself in the event of a power failure.

- *Complete software compatibility:* Virtually all Macintosh software runs on the Macintosh IIci, including applications designed to take advantage of floating-point coprocessors.

- *Apple sound chip:* Supports high-quality, four-voice digital sound reproduction.

- *Parity support:* This feature is available to customers requiring the maximum degree of memory-checking ability. The optional parity feature must be ordered at time of purchase, and includes the Parity Generator Chip (PGC) and Parity DRAM*.

Support for parity must be requested and ordered at time of initial purchase; the Macintosh IIci cannot be upgraded to include parity at a later date.

Macintosh IIci

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rently available Apple networking and communications products on the Macintosh IIci. The disk contains scripts and instructions for installation of these Apple networking and communications products:

- EtherTalk Driver (and Network CDEV)
- TokenTalk Driver (and Network CDEV)
- AppleShare File Server
- AppleShare® Print Server (application and printer drivers)
- SMB File Transfer Utility
- AppleTalk Internet Router
- AppleShare IIGS Setup (requires Apple II Setup disk Version 2.1.1 or higher)

Please note that the network products themselves are not included; they must be purchased separately.

Upgrades

As a result of the higher clockspeed (Macintosh IIci DRAM must be rated at 80ns or faster) and parity support, Apple is making RAM upgrades specifically for the Macintosh IIci in 1MB, 4MB, and 4MB Parity configurations.

Later this fall, Macintosh IIcx customers who wish to upgrade their machines will be able to purchase a Macintosh IIci Logic Board Upgrade Kit which includes the logic board, a complete accessory kit, a new internal hard disk power cable, and a bottom case to accommodate the new DB15 video connector.

Cache memory cards for the memory cache connector are available from third-party developers now; Apple will make a memory cache card available early in 1990.

Macintosh IIci CPU	
Order Number:	M5710LL/A

Macintosh IIci Hard Disk 40 CPU	
Order Number:	M5715LL/A

Macintosh IIci Hard Disk 80 CPU (4MB)	
Order Number:	M5740LL/A

Macintosh IIci Hard Disk 80 Parity CPU (4MB)	
Order Number:	M5745LL/A

Macintosh IIci A/UX Hard Disk 80 CPU (4MB)	
Order Number:	M5750LL/A

A/UX 1.1.1

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Updates

AppleTalk for A/UX is now available. Subscribers to the A/UX Software Update Service will automatically receive AppleTalk for A/UX version 2.0. For more information, contact your nearest authorized Apple A/UX reseller, or Apple Sales Representative.

This issue of *AppleGram* was produced using Apple Technology and third-party software applications for the Macintosh computer.

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Target Marketplace

In Basket
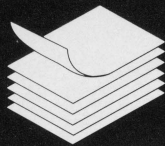
Important Changes to Portrait Display Cable and Video Card

The new Macintosh IIci *(see article, "Macintosh IIci")* features on-board video support for the Apple Macintosh Portrait Display (M0404), via a built-in 15-pin connector on the back of the CPU.

Both the Portrait Display video cable and the Macintosh II Portrait Display Video Card have been changed in order to make it as simple as possible to connect the display to all Macintosh II family computers, including the Macintosh IIci.

Complete details about the changes are included in the September Service Programs mailing sent to all authorized Apple service providers. Be sure to take them into account when you order a Macintosh Portrait Display for any Macintosh II family computer.

MacIS Debuts in Chicago

More than 100 top MIS directors gathered in Chicago last month to discuss future directions for the Macintosh within their corporations, universities, and large business organizations during the inaugural meeting of MacIS (Managing Apple Computers in Information Systems). MacIS is an independently operated, non-profit alliance of users dedicated to increasing the effectiveness of Macintosh computers for information systems professionals.
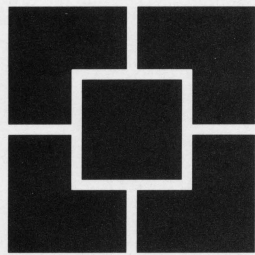
Founded early in 1989 by top Apple customers, MacIS seeks to maximize participants' Macintosh investments by providing a forum for the exchange of information among IS professionals. Jim Young, MacIS president and assistant to the president of EDS Corporation, commented, "MacIS will establish peer contacts and communications channels among IS professionals to influence the products, policies, and services of Apple and related vendors. We'll do this by conducting conferences, forums, and programs and by establishing an infrastructure for communication within this community."

The two-day conference included a keynote address by John Sculley (in the premiere broadcast from the newly-established Apple TV broadcasting facility), a downlink of Apple's networking and communications product introductions, and customer-to-customer discussions on LANs, host integration, and networking in heterogeneous environments.

Participants included MIS executives from Proctor & Gamble, LL Bean Inc., Booz Allen & Hamilton, Dartmouth, Radio Free Europe, and more than 100 other top Macintosh installations

"This is the first organization of its kind in the Macintosh community," noted Dave Côté, Director of Strategic Relations and an early champion of MacIS. "Our existing user groups and professional associations have paved a path of influence, but MacIS focuses on a specific, strategic community. We expect the relationship to grow dramatically as we gain momentum in MIS environments."

For more information on MacIS, please call MacIS Headquarters at 312/644-6610.